

**AMENDMENTS TO THE CLAIMS:**

1. (Original) A method of fracturing rock by inducing shear stress on the rock surface, comprising the step of directing radiation generated by a high-intensity arc lamp operating in excess of 4000° C onto the rock surface.
2. (Original) The method of claim 1 wherein the arc lamp operates in excess of 8000° C.
3. (Original) The method of claim 2 wherein the arc lamp operates at about 12,000° C.
4. (Currently Amended) ~~A method of fracturing rock by inducing shear stress or tensile stress, or shear stress and tensile stress in the rock by directing radiation generated by a high-intensity arc lamp and varying the intensity of the arc lamp to achieve either shear stress or tensile stress, or shear stress and tensile stress, as desired.~~ The method of claim 1 wherein the induction of shear stress is alternated with tensile stress induced by the use of the arc lamp at an intensity less than that required for the induction of shear stress.
5. (Original) A method of fracturing a brittle material, comprising the step of directing radiation generated by a high-intensity arc lamp operating in excess of 4000° C upon a mass of rock until the rock fractures due to induced thermal stresses.
6. (Original) The method of claim 5 wherein the brittle material comprises rock.
7. (Currently Amended) The method of claim 4 5 wherein the brittle material comprises ceramic material.